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us-09-50.

F;450-580,581-810/Product: angiostatin #status experimental <AST>
F;450-580/Domain: plasmin #status experimental <MAT>
F;450-580/Domain: plasmin chain A #status experimental <CHA>
F;450-580,581-810/Domain: kringle homology <KR1>
F;450-580,581-810/Domain: kringle homology <KR2>
F;450-580,581-810/Domain: kringle homology <KR3>
F;450-580,581-810/Domain: kringle homology <KR4>
F;450-580,581-810/Domain: kringle homology <KR5>
F;450-580,581-810/Product: microplasmin #status experimental <MMT>

Query Match 99.7%; Score 1535; DB 1; Length 810;
Best Local Similarity 99.6%; Pred. No. 7.1e-105;
Matches 259; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 VYLSECKTGNGKNYRGTMSTKNGITCQKWSSTSPHRPRFSPATHPSEGLEENYCRNPDN 60
Db 98 VYLSECKTGNGKNYRGTMSTKNGITCQKWSSTSPHRPRFSPATHPSEGLEENYCRNPDN 157
Qy 61 DPQGPWCYT TDPEKRYDYCDILECEEEECHCSGENYDGKISKTMMSGLECQAWDSQSPHAH 120
Db 158 DPQGPWCYT TDPEKRYDYCDILECEEEECHCSGENYDGKISKTMMSGLECQAWDSQSPHAH 217
Qy 121 GYIPSKFPNKLKKNYCRNPDRRELRPWCFTTDPNKRWELCDIPRCTTPSSGPTYQCLK 180
Db 218 GYIPSKFPNKLKKNYCRNPDRRELRPWCFTTDPNKRWELCDIPRCTTPSSGPTYQCLK 277
Qy 181 GTGENYRGNVAVTVSGHTCQHWSAQTPHTHERTPENFPCKNLDENYCRNPDGKRAPWCHT 240
Db 278 GTGENYRGNVAVTVSGHTCQHWSAQTPHTHERTPENFPCKNLDENYCRNPDGKRAPWCHT 337
Qy 241 TNSQVRWEYCKIPSCDSSPV 260
Db 338 TNSQVRWEYCKIPSCDSSPV 357

RESULT 2

B30848

plasmin (EC 3.4.21.7)

hesus macaque)

389
Asn

30	271	17.6	89	2	A60140	plasmin (EC 3.4.21
31	268	17.4	123	2	C61545	plasmin (EC 3.4.21
32	241.5	15.7	937	2	A45082	neurotrophic recep
33	240	15.6	943	2	B45082	neurotrophic recep
34	237.5	15.4	946	1	A47299	r-or-related recept
35	233	15.1	603	2	S28941	coagulation factor
36	214	13.9	558	2	JCS5878	plasma hyaluronan-
37	210	13.6	560	1	JC4795	plasma hyaluronan-
38	201	13.1	291	2	I38098	t-plasminogen acti
39	198	12.9	615	1	KFH012	coagulation factor
40	190.5	12.4	593	2	S45281	coagulation factor
41	188.5	12.2	655	1	A46688	hepatocyte growth
42	178.5	11.6	806	2	T18840	hypothetical prote
43	165	10.7	433	1	JN0560	u-plasminogen acti
44	153	9.9	442	1	UKPG	u-plasminogen acti
45	151	9.8	432	1	S18932	u-plasminogen acti

ALIGNMENTS

RESULT 1
PLHU
plasmin (EC 3.4.21.7) precursor [validated] - human
N;Alternate names: plasminogen precursor [misnomer]
N;Contains: angiostatin; microplasmin; plasminogen
C;Species: Homo sapiens (man)
C;Date: 24-Apr-1984 #sequence_revision 02-Dec-1994 #text_change 15-Sep-2000
C;Accession: A35229; I52242; A26646; I62738; I84609; S03735; A00929; A04627; A04625;
R;Petersen, T.E.; Martzen, M.R.; Ichinose, A.; Davie, E.W.
J. Biol. Chem. 265, 6104-6111, 1990
A;Title: Characterization of the gene for human plasminogen, a key proenzyme in the f
A;Reference number: A35229; MUID:90202879
A;Accession: A35229
A;Molecule type: DNA
A;Residues: 1-810 <PET>
A;Cross-references: GB:J05286; GB:M34276; NID:g190064; PIDN:AAA60113.1; PID:g387026
A;Experimental source: leukocyte; lung fibroblast
R;Malgaretti, N.; Bruno, L.; Pontoglio, M.; Candiáni, G.; Meroni, G.; Ottolenghi, S.;
Biochem. Biophys. Res. Commun. 173, 1013-1018, 1990
A;Title: Definition of the transcription initiation site of human plasminogen gene in
A;Reference number: I52242; MUID:91097523
A;Accession: I52242
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-16 <MAL1>
A;Cross-references: GB:M62890; NID:g190092; PIDN:AAA36454.1; PID:g553613
R;Forsgren, M.; Raden, B.; Israelsson, M.; Larsson, K.; Heden, L.O.
FEBS Lett. 213, 254-260, 1987
A;Title: Molecular cloning and characterization of a full-length cDNA clone for human
A;Reference number: A26646; MUID:87162490
A;Accession: A26646
A;Molecule type: mRNA
A;Residues: 1-471,'D',473-810 <FOR>
A;Cross-references: GB:X05199; NID:g35530; PIDN:CAA28831.1; PID:g35531
A;Experimental source: liver
R;Malinowski, D.P.; Sadler, J.E.; Davie, E.W.
Biochemistry 23, 4243-4250, 1984
A;Title: Characterization of a complementary deoxyribonucleic acid coding for human a
A;Reference number: I45961; MUID:85023311
A;Accession: I62738
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 292-471,'D',473-810 <MAL2>
A;Cross-references: GB:K02922; NID:g190112; PIDN:AAA60124.1; PID:g387031
A;Accession: I84609
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 367-419 <MAL3>
A;Cross-references: GB:K02921; NID:g190110; PIDN:AAA60123.1; PID:g190111
R;Brunisholz, R.A.; Lerch, P.G.; Schaller, J.; Rickli, E.E.; Lergier, W.; Manneberg,
Eur. J. Biochem. 114, 465-470, 1981
A;Title: Comparison of the primary structure of the N-terminal CNBr fragments of huma

- A; Reference number: S03735; MUID:81212097
 A; Accession: S03735
 A; Molecule type: protein
 A; Residues: 20-71,'E',73-76
>
 R; Sorstrup-Jensen, L.; Petersen, T.E.; Magnusson, S.
 Submitted to the Atlas, July 1977
- A; Reference number: A00929
 A; Accession: A00929
 A; Molecule type: protein
 A; Residues: 20-71,'E',73-85,'87-106,'D',108-360,'E',362-810 <SOT>
 R; Wiman, B.
Eur. J. Biochem. 76, 129-137, 1977
- A; Title: Primary structure of the B-chain of human plasmin.
 A; Reference number: A04627; MUID:77225245
 A; Accession: A04627
 A; Molecule type: protein
 A; Residues: 581-810 <W11>
 R; Wiman, B.; Wallen, P.
Eur. J. Biochem. 50, 489-494, 1975
- A; Title: Structural relationship between "glutamic acid" and "lysine" forms of human plasmin.
 A; Reference number: A04625; MUID:75093329
 A; Accession: A04625
 A; Molecule type: protein
 A; Residues: 20-50,'Q',51-71,'E',73-85,87-100 <WI2>
 R; Wiman, B.; Wallen, P.
Eur. J. Biochem. 58, 539-547, 1975
- A; Title: Amino-acid sequence of the cyanogen-bromide fragment from human plasminogen that
 A; Reference number: A04626; MUID:76043692
 A; Accession: A04626
 A; Molecule type: protein
 A; Residues: 483-507,'E',509-604 <WI3>
 R; Robbins, K.C.; Bernabe, P.; Arzadon, I.; Summaria, L.
J. Biol. Chem. 248, 1631-1633, 1973
- A; Title: The primary structure of human plasminogen. II. The histidine loop of human plasmin.
 A; Reference number: A92125; MUID:73149248
 A; Contents: annotation; active site
 R; Groskopf, W.R.; Summaria, L.; Robbins, K.C.
J. Biol. Chem. 244, 3590-3597, 1969
- A; Title: Studies on the active center of human plasmin. Partial amino acid sequence of a
 A; Reference number: A92048; MUID:69234739
 A; Contents: annotation; omega-aminoacid binding sites
 R; Trexler, M.; Vali, Z.; Patthy, L.
J. Biol. Chem. 257, 7401-7406, 1982
- A; Title: Structure of the omega-aminoacid binding sites of human plasminogen.
 A; Reference number: A92382; MUID:82213905
 A; Contents: annotation; omega-aminoacid binding sites
 R; Vali, Z.; Patthy, L.
J. Biol. Chem. 259, 13690-13694, 1984
- A; Title: The fibrin-blinding site of human plasminogen. Arginines 32 and 34 are essential
 A; Reference number: A92458; MUID:85054794
 A; Contents: annotation; fibrin binding site; omega-aminoacid binding site
 R; Cao, Y.; Ji, R.W.; Davidson, D.; Schaller, J.; Marti, D.; Seindel, S.; McCance, S.G.;
J. Biol. Chem. 271, 29461-29467, 1996
- A; Title: Kringle domains of human angiostatin. Characterization of the anti-proliferative
 A; Reference number: A58811; MUID:97067211
 A; Contents: annotation
 R; Lijnen, H.R.; Ugwu, F.; Binli, A.; Collen, D.
Biochemistry 37, 4699-4702, 1998
- A; Title: Generation of an angiostatin-like fragment from plasminogen by stromelysin-1 (N
 A; Reference number: A58812; MUID:9548733
 A; Contents: annotation
 R; Tulinsky, A.; Mulchak, A.M.
 Submitted to the Brookhaven Protein Data Bank, July 1991
- A; Reference number: A51341; PDB:1PK4
 A; Contents: annotation; X-ray crystallography, 1.9 angstroms, residues 376-454
 R; Tulinsky, A.; Wu, T.P.
 Submitted to the Brookhaven Protein Data Bank, July 1991
- A; Title: Crystal and molecular structure of human plasminogen kringle 4 refined at 1.
 A; Reference number: A58819; MUID:92031502
 A; Contents: annotation
 R; Wu, T.P.; Padmanabhan, K.; Tulinsky, A.; Mulchak, A.M.
Biochemistry 30, 10576-10588, 1991
- A; Title: The refined structure of the epsilon-aminocaproic acid complex of human plasminogen.
 A; Reference number: A58818; MUID:92031503
 A; Contents: annotation
 R; de Vos, A.M.; Ultsch, M.H.; Kelley, R.F.; Padmanabhan, K.; Tulinsky, A.; Westbrook, R.; Biochemistry 31, 270-279, 1992
- A; Title: Crystal structure of the kringle 2 domain of tissue plasminogen activator at 2.4 angstroms
 A; Reference number: A39483; MUID:92118803
 A; Contents: annotation; X-ray crystallography, 2.4 angstroms
 R; Stec, B.; Teeter, M.M.; Whitlow, M.; Yamano, A.
 Submitted to the Brookhaven Protein Data Bank, June 1995
- A; Title: A structural assignment of the kringle 1 domain of human plasminogen
 A; Reference number: A65980; PDB:1KRN
 A; Contents: annotation; X-ray crystallography, 1.67 angstroms, residues 376-454
 A; Reference number: A65981; PDB:1KRN
 A; Contents: annotation; conformation by (1)H-NMR, residues 103-181
 A; Reference number: A65803; PDB:1HPJ
 A; Contents: annotation; conformation by (1)H-NMR, residues 103-181
 R; Rejante, M.; Llinas, M.
 Submitted to the Brookhaven Protein Data Bank, August 1996
- A; Title: A structural assignment of the kringle 1 domain of human plasminogen
 A; Reference number: A65804; PDB:1HPK
 A; Contents: annotation; conformation by (1)H-NMR, residues 103-181
 R; Rejante, M.R.; Llinas, M.
Eur. J. Biochem. 221, 927-937, 1994
- A; Title: (1)H-NMR assignments and secondary structure of human plasminogen kringle 1.
 A; Reference number: A65645; MUID:94237157
 A; Contents: annotation; conformation by (1)H-NMR, residues 96-184
 R; Rejante, M.R.; Llinas, M.
Eur. J. Biochem. 221, 939-949, 1994
- A; Title: Solution structure of the epsilon-aminohexanoic acid complex of human plasminogen.
 A; Reference number: A58817; MUID:94237158
 A; Contents: annotation; conformation by (1)H-NMR
 C; Comment: Plasminogen is synthesized by the kidney and is present in plasma (many
 d PIR:FGHGB).
 C; Comment: Plasmin is converted to plasmin by plasminogen activators (see PIR:URK
 F; 1-96/Domain: plasminogen-related protein precursor homolog; fibrinolysis; fibrinolysis;
 F; 1-19/Domain: plasminogen-related protein precursor homolog <SIC>
 F; 20-810/Product: plasminogen #status experimental <PRO>
 F; 20-96/Domain: activation peptide #status experimental <APT>